

Hi Jay,

HERE IT IS, THE LONG-AWAITED AUDIO SWITCHER DESIGN.

THIS IS A COPY OF MY FINAL SKETCH BEFORE THE FINAL DRAWING. I HOPE YOU CAN READ IT SINCE I HAVE BECOME TOO LAZY (AND BUSY) TO DO THE FINAL DRAWING; YOU'VE PROBABLY READ SLOPPIER SCHEMATICS BEFORE. ALSO, THERE COULD STILL BE A DESIGN ERROR; SO, BESIDES JUST PLAIN LAZINESS, IT MAKES SENSE THAT WE DRAFT THE FINAL SCHEMATIC AFTER TESTING.

YOU SHOULD NOTE ~~THAT~~ SOME $1\mu\text{F}$ CAPACITORS IN THE AUDIO INPUT STAGES. THE ONES MARKED "*" ARE WHAT I'M CONCERNED WITH. NOTE THAT THERE IS ONLY 1 OF THESE CAPS FOR STABILIZING IN_0 AND IN_1 . I THINK 1 STABILIZING CAP PER 2 INPUTS IS SUFFICIENT, I.E. 1 CAP PER CHIP.

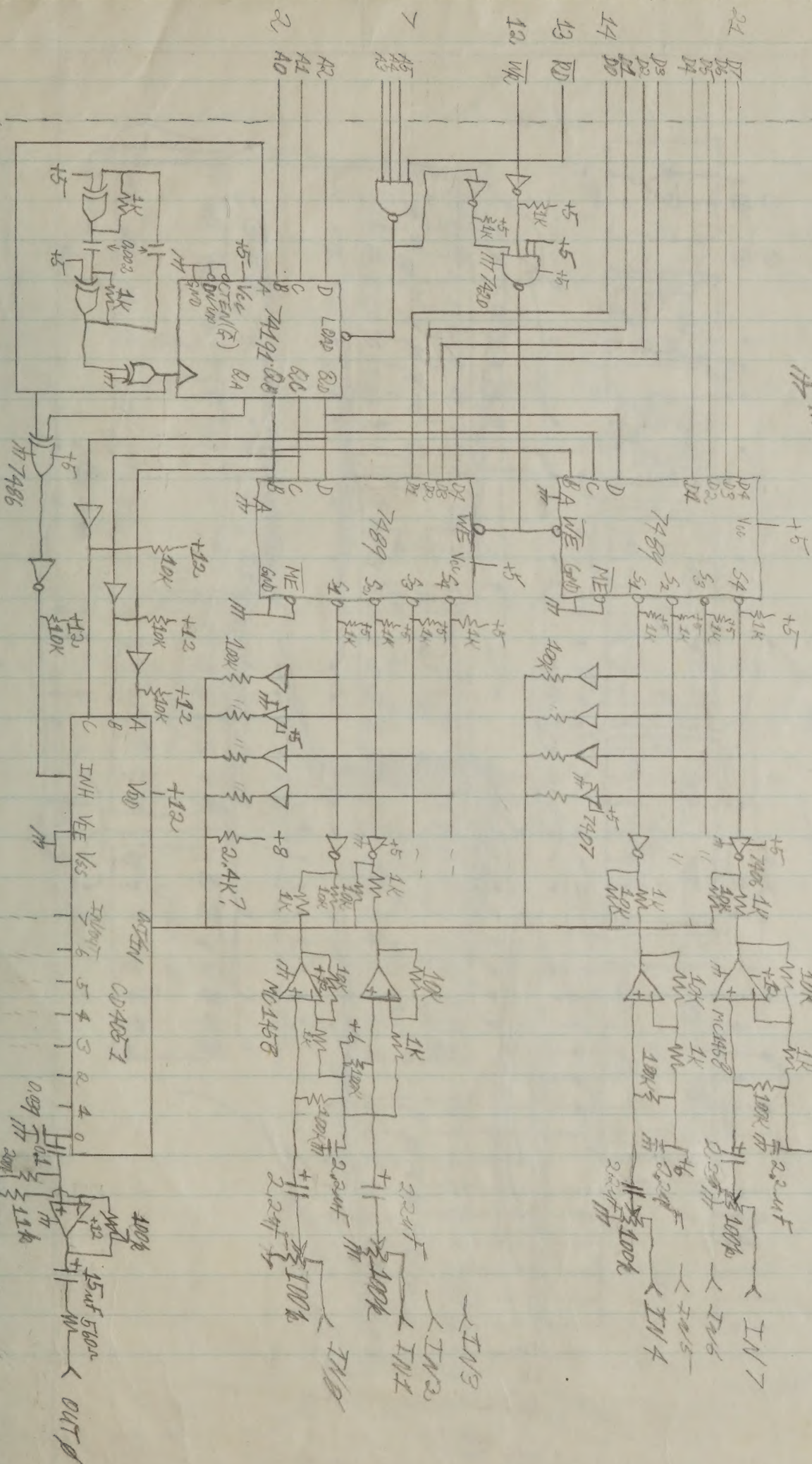
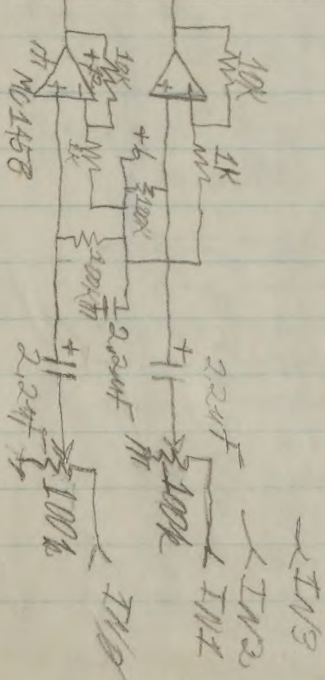
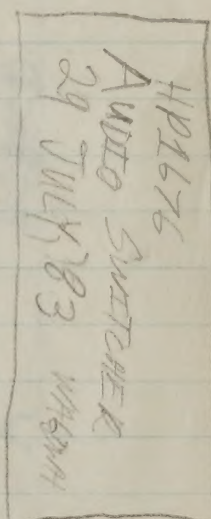
BOARD LAYOUT AND OUTPUT/INPUT AUDIO CONNECTOR ARE YOUR CHOICE. I'VE SUGGESTED A DB25 FOR THE CONNECTOR, BUT IF YOU CAN THINK OF A BETTER 1, GREAT.

ANYWAY, HAVE FUN AND WE CAN DISCUSS MISUNDERSTANDINGS ON 40m.

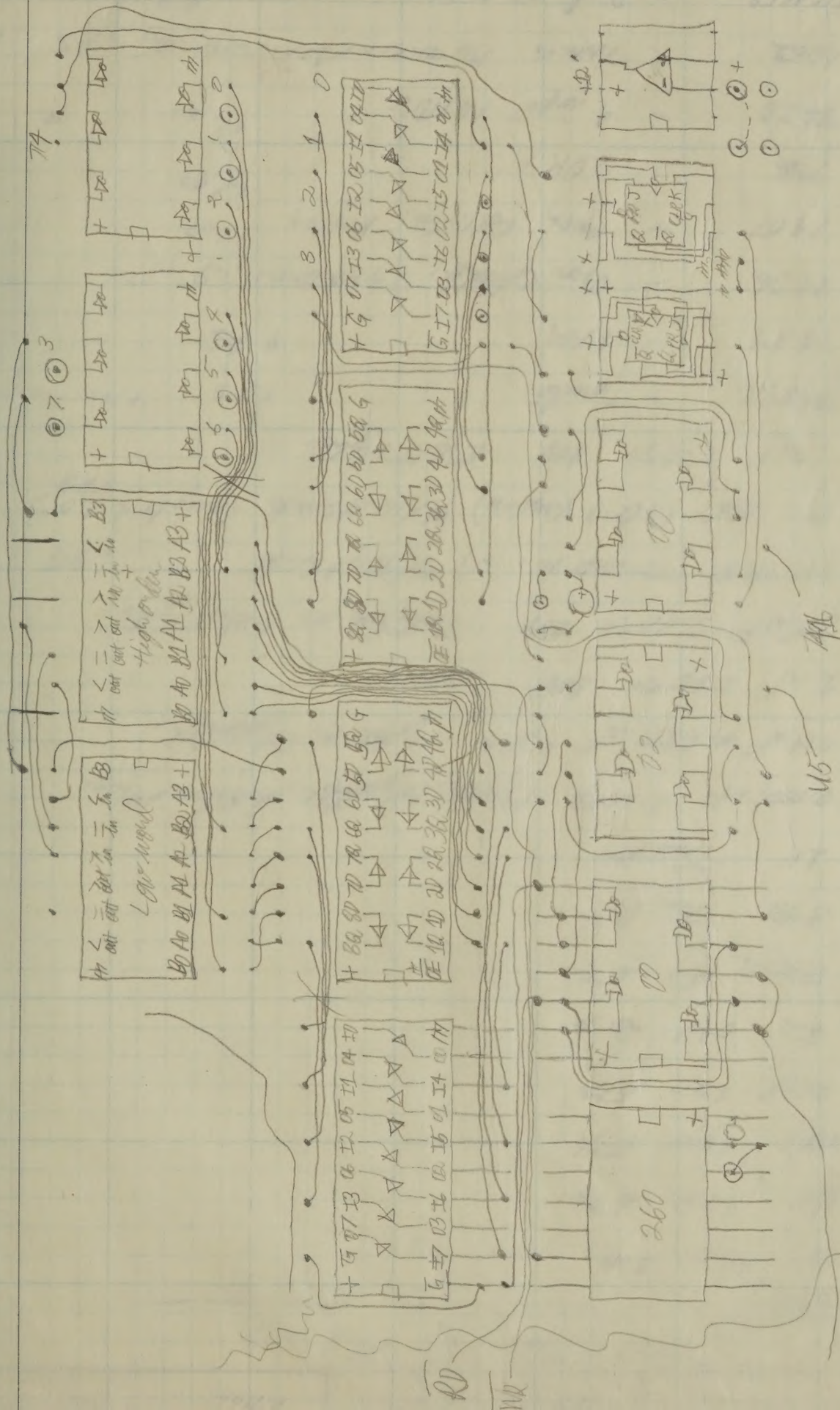
UNTIL LATER,

W. Daniel Abbot

82-100



Director A BOARD



Qty	Description		
36	1K 1/4W 5%		
25	10K 1/4W 5%		
16	100K 1/4W 5%		
1	2.4K 1/2W 5%		
1	5-Ω 5W 20%		
2	33Ω 1/2 5%		
8	50K Trim Pot		
8	1K Trim Pot		
2	0.002 μF ±10% Mylar, Polyester, or Silver Mica		
8	0.04 μF or 0.009 μF ±10% Mylar or Polyester		
12	1 μF ±20% 10V Tantalum		
8	25 μF ±20% 10V Tantalum or Electrolytic		
✓ 1	MC7808 (TO-220 Version) w/Heat Sink	.99	
✓ 1	MC7805 (TO-3 Version) w/Heat Sink (height < 1.0")	.79	
4	10 μF ±20% 10V Electrolytic		
✓ 1	74191 - Counter	1.15	1.00
✓ 2	7489 - RAM	4.95	
✓ 2	7406 - Open Collector Inverter	.29	.35
✓ 2	7407 - Open Collector Buffer	.29	.35
1	7486 - XOR	2.50	.35
1	7420 - 4 input NAND's	4.00	.25
✓ 1	4052 - ANALOG MULTIFUNCTION DEMONSTRATOR	.95	4.19
✓ 8	MC1458 - Dual op-amps	.69	

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Equipment Part List

Quan	Description	
8	8 PIN DIP SOLDERABLE SOCKET .13	.39
6	14 PIN " " " .15	.49
4	16 PIN " " " .17	.54
1	PROTOTYPING CIRCUIT BOARD WITH GROUND-PLANE AND GOLD-PLATED EDGE FINGERS (2x44 @ 156 MIL SPACING)	
1	DB25 MALE CONNECTOR (OR OTHER CONNECTOR) SUITABLE FOR AUDIO CONNECTIONS)	

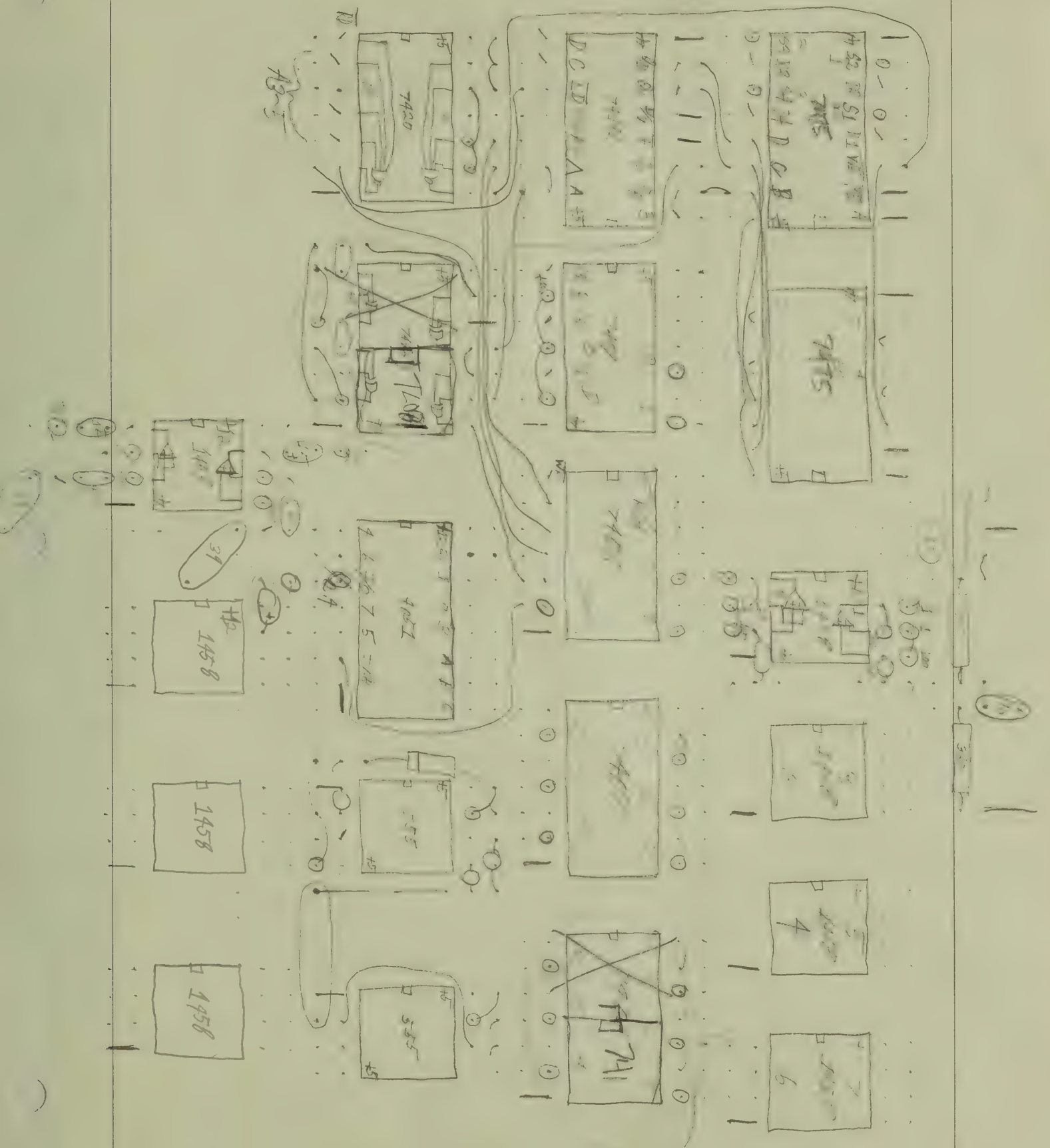
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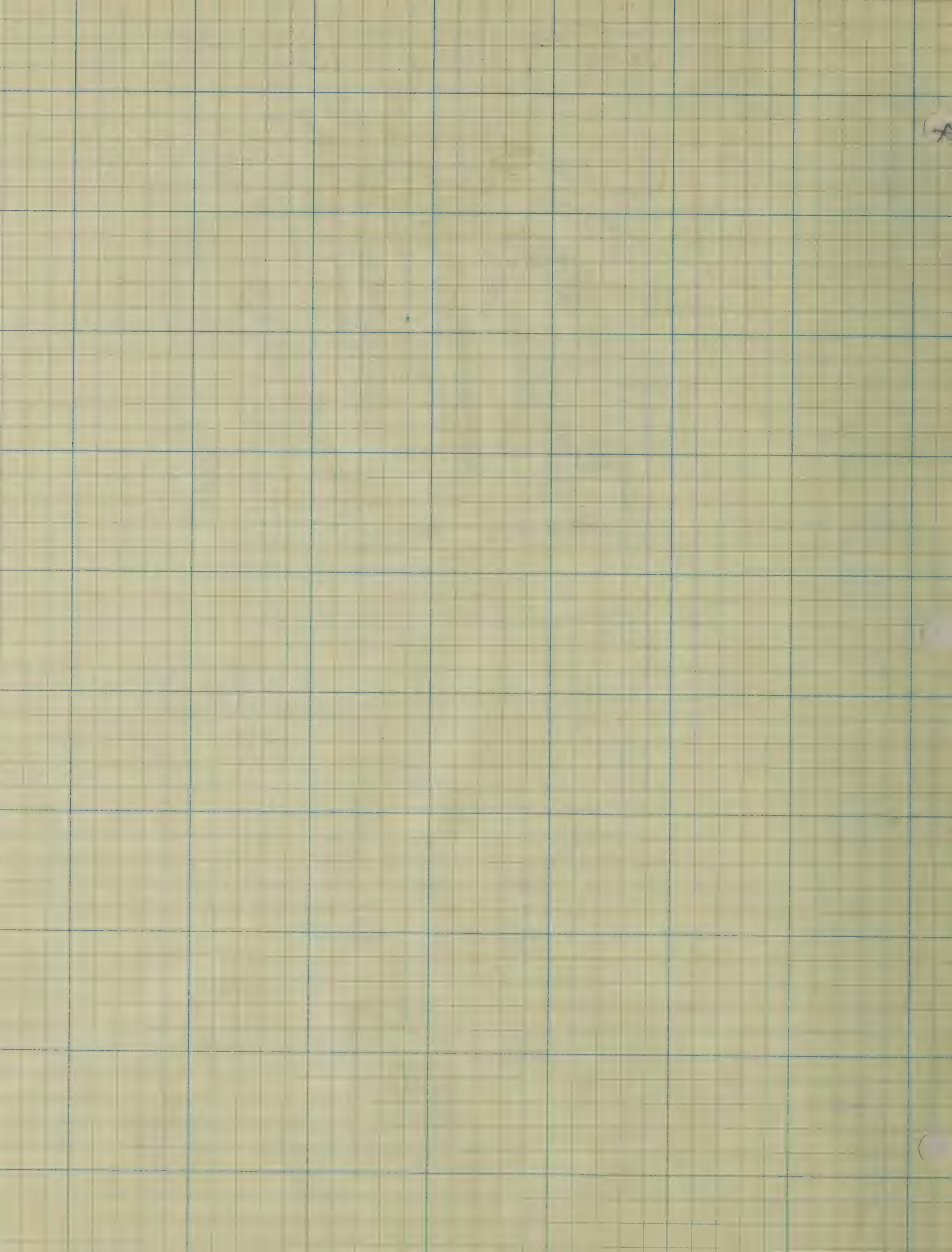
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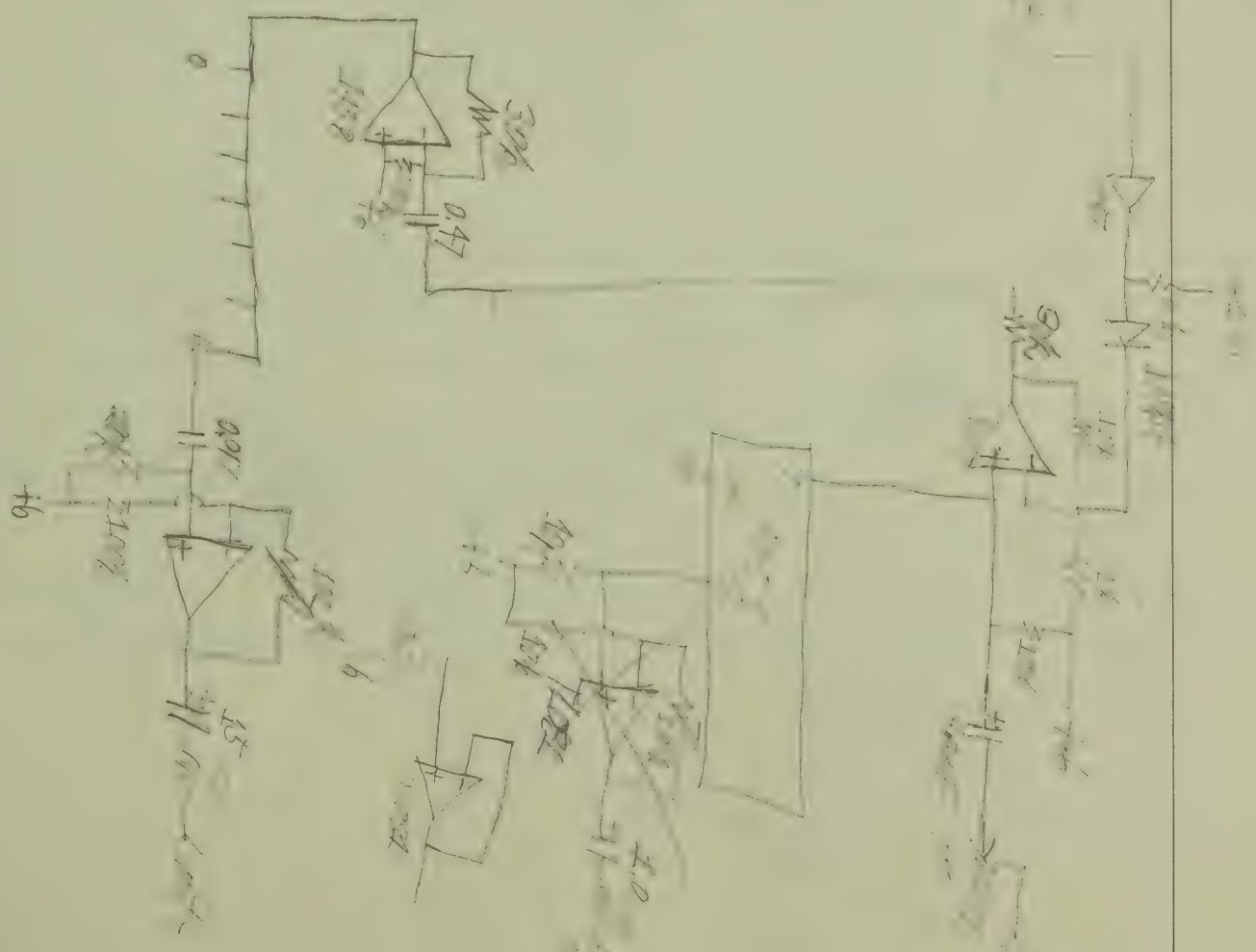
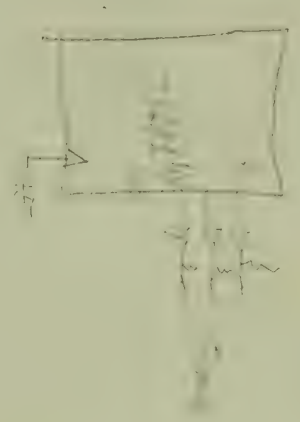
8	2N2907	
2	24 PIN	
4	15 PIN	
2	MC7805 TO-220 W HT SINK	
8	LM335	

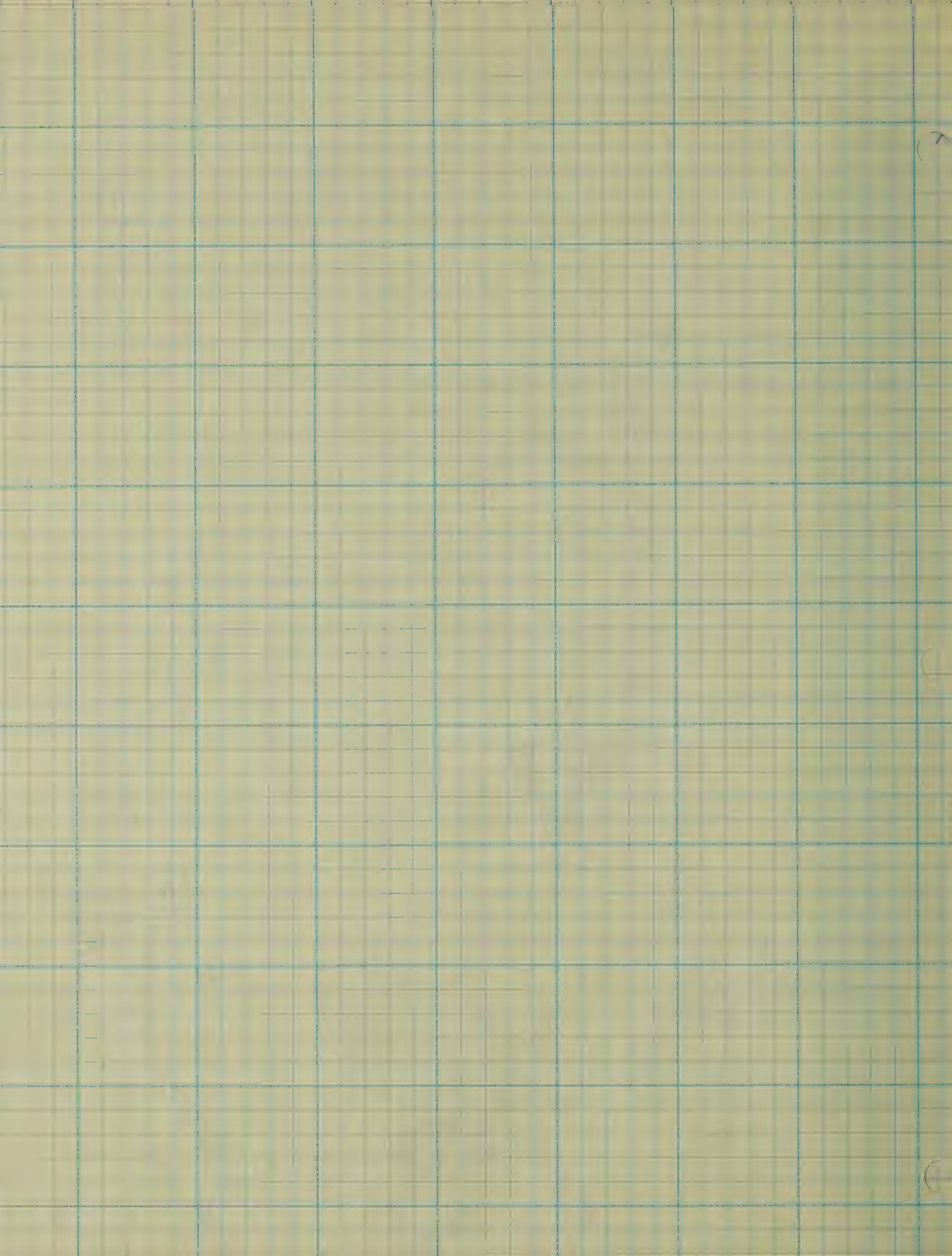
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Audio Matrix Board



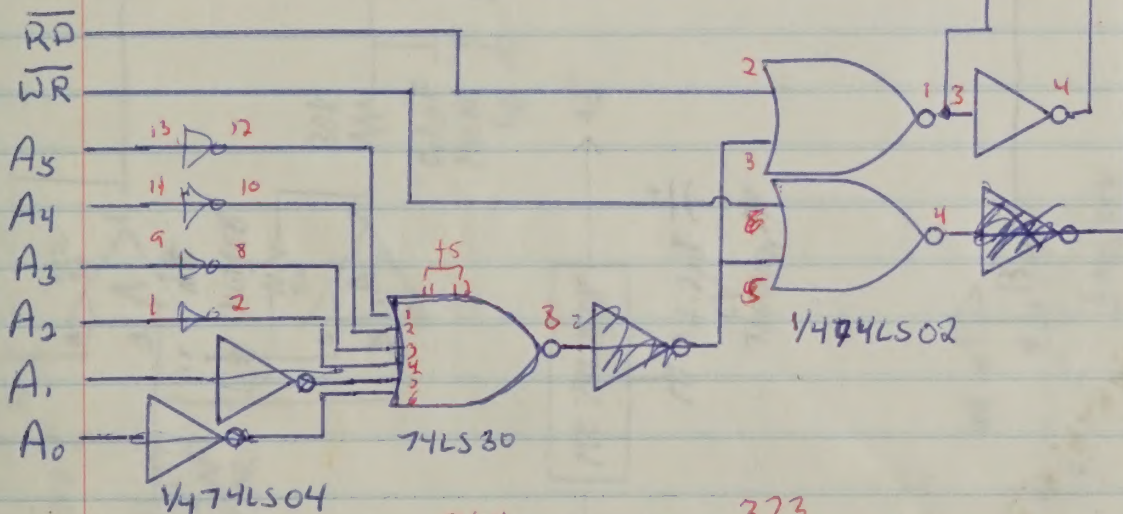
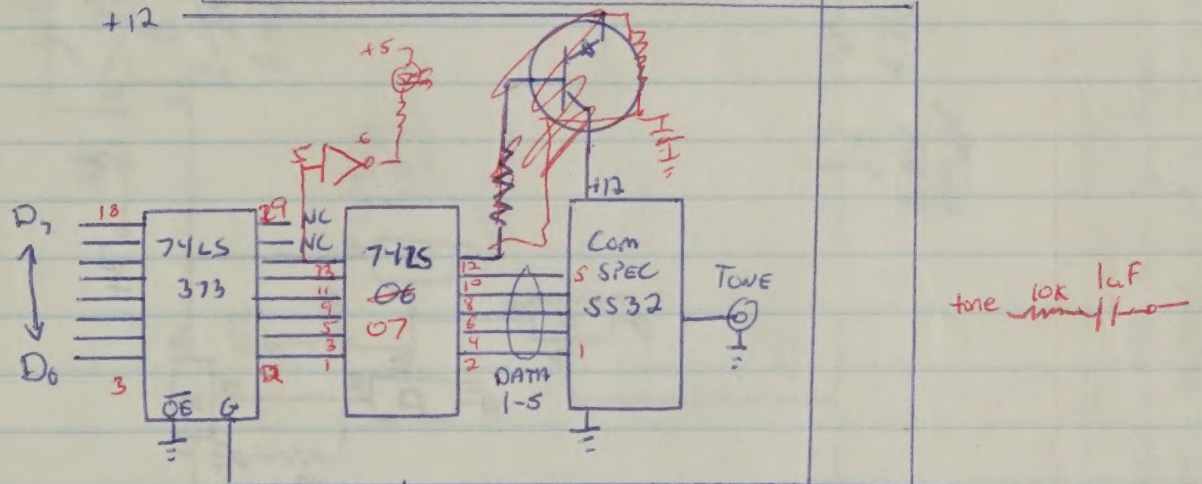
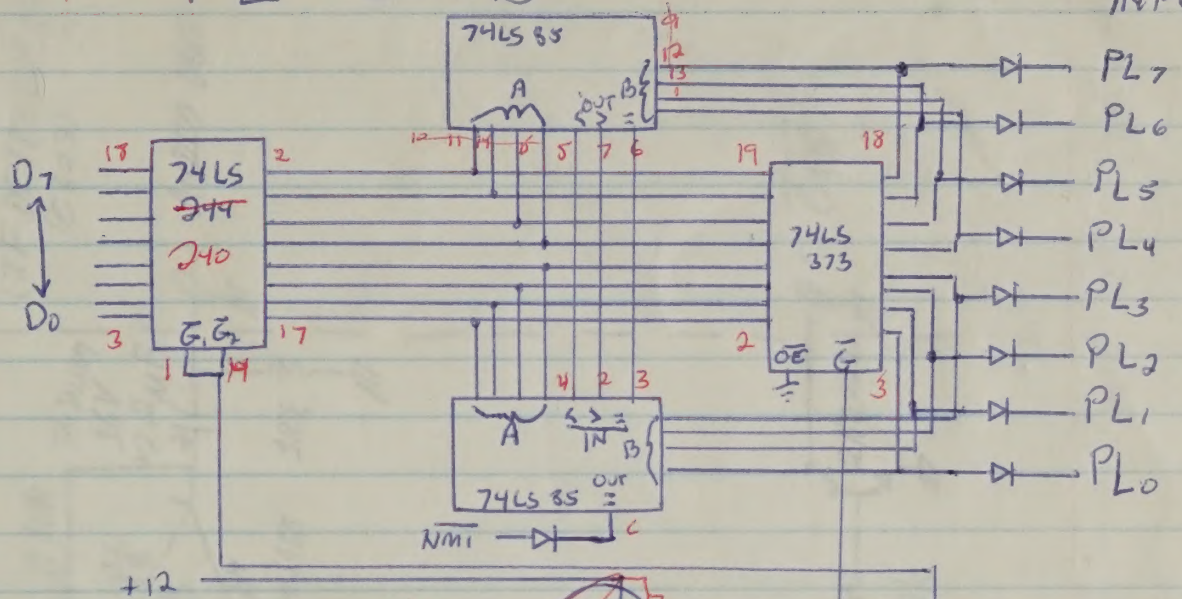






PL BOARD

INPUTS



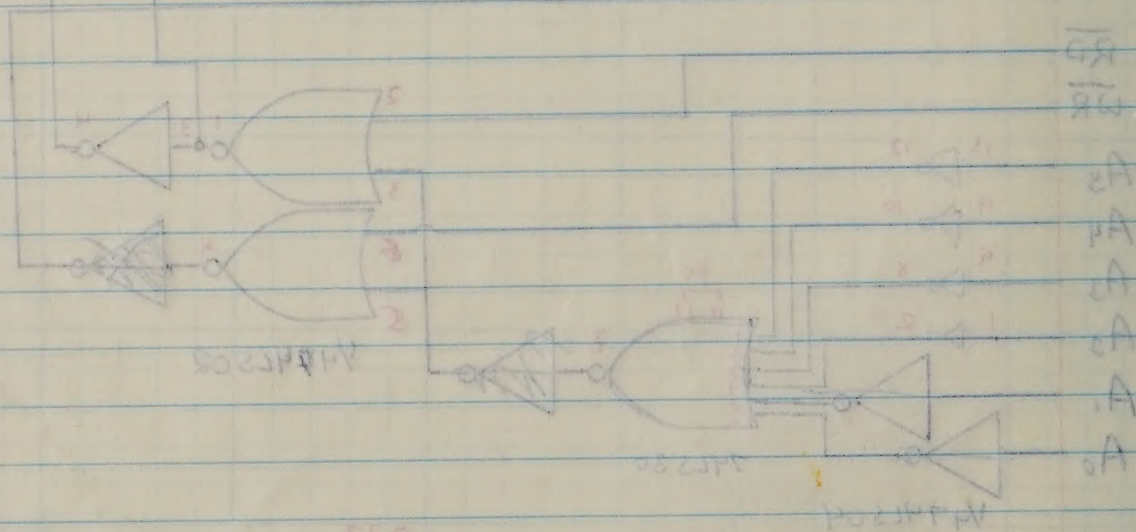
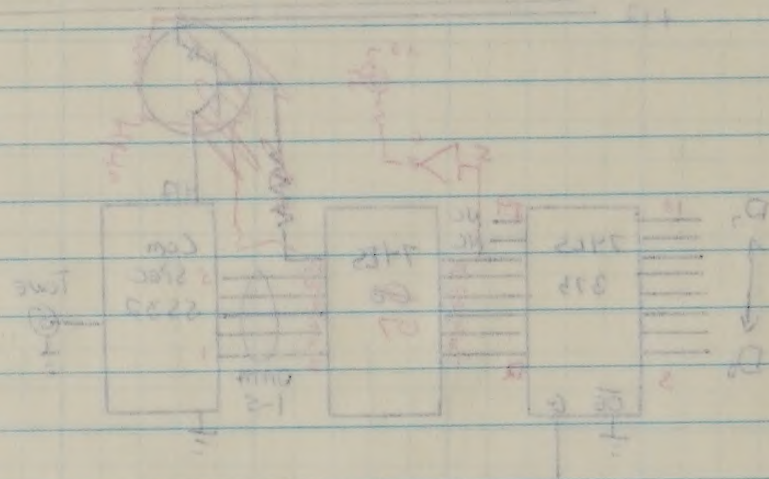
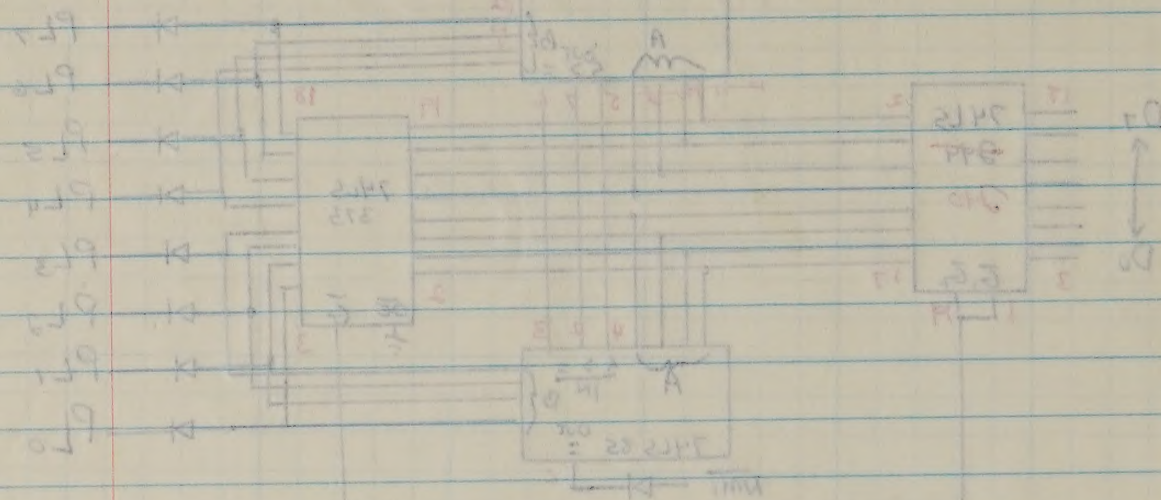
244	
110	007
2	18
4	16
6	14
8	12
11	9
13	7
15	5
17	3

373		
11	10	OUT
9	3	2
8	4	5
7	2	6
6	8	9
5	13	12
4	14	15
3	17	16
2	18	19

$$\overline{\text{OUT}} = 1$$

BOARD 19

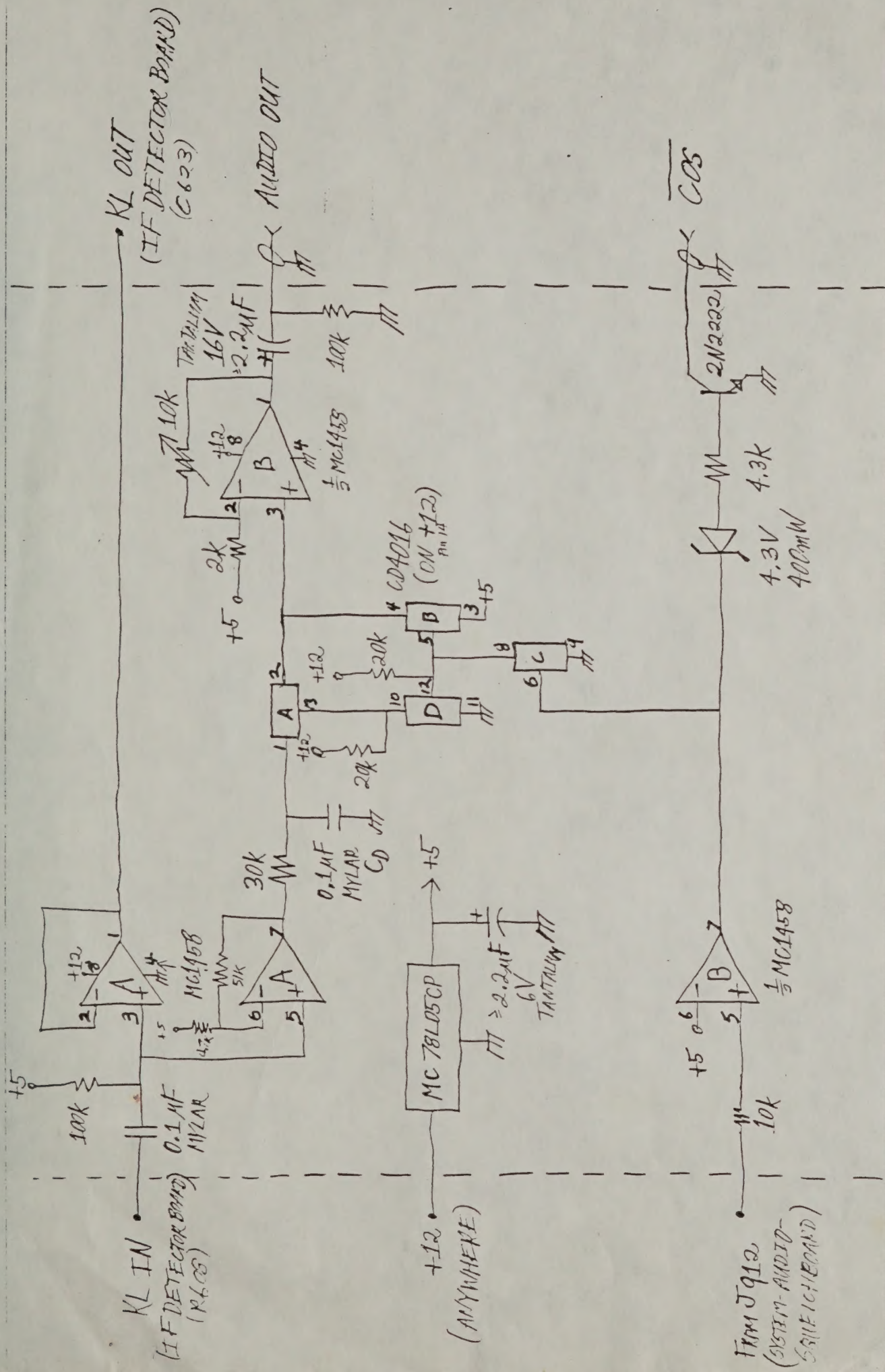
INP



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CAN SUBSTITUTE ANY +5VOLT REGULATOR FOR MC78L05CP.
 CAN SUBSTITUTE 741, 747, 4558, 7401, etc. FOR MC1458 (AVOID LM324!).

